

IN THE CLAIMS

Please change the claims to read as follows:

LISTING OF CLAIMS

1. (Currently Amended) A focusing method used in a unit for forming a master of a data recording medium, in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium, in which a photosensitive material film is applied to a surface of a base, remains constant, and information is recorded on said recording medium, wherein

~~characterized in that the~~ focusing control of said objective lens is executed to ~~a state that the position of a focal point of said objective lens has shifted~~ a predetermined fine distance, which is smaller than a film thickness of said photosensitive material film, ~~in the direction of thickness, toward inside from within said photosensitive material film relative to a surface of~~ said photosensitive material film.

2. (Original) A focusing method in accordance with claim 1, wherein said predetermined fine distance has a value which is in the range of approximately $1/3$ to $2/3$ of the film thickness of said photosensitive material film.

3. (Original) A focusing method in accordance with claim 1, wherein said predetermined fine distance has a value which is approximately $\frac{1}{2}$ of the film thickness of said photosensitive material film.

4. (Currently Amended) A focusing method in accordance with claim 1, wherein:

feedback control is performed using different light whose wavelength is longer than that of said recording light such that a distance between said objective lens and said recording medium remains constant,

a discrepancy of the distance between said objective lens and said recording medium from a desirable distance is detected using reflected light which is generated as said recording medium reflects said recording light, and

a control target position for said feedback control is corrected based on said detected discrepancy such that the distance between said objective lens and said recording medium becomes said desirable distance, whereby said objective lens is focusing-controlled.

5. (Currently Amended) A focusing method used in a unit for forming a master of a data recording medium, in which

recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium remains constant, and information is recorded on said recording medium, wherein:

~~characterized in that~~ the feedback control is performed using different light whose wavelength is longer than that of said recording light such that a distance between said objective lens and said recording medium remains constant,

a discrepancy of the distance between said objective lens and said recording medium from a desirable distance is detected using reflected light which is generated as said recording medium reflects said recording light, and

a control target position for said feedback control is corrected based on said detected discrepancy such that the distance between said objective lens and said recording medium becomes said desirable distance.

Claim 6 .(Cancelled) .

7. (Currently Amended) A method of detecting a deviation of a focal point position characterized in that, based on an intensity distribution of reflected light which is generated as a

recording medium reflects through an objective lens recording light which is modulated in accordance with information to be recorded, a discrepancy of a distance between said objective lens and said recording medium from a desirable distance is detected ~~A method of detecting a deviation of a focal point position in accordance with claim 6, wherein;~~

the intensity distribution of said reflected light is an intensity distribution of a spot of said reflected light which is projected on a light receiving surface which is arranged confocal with respect to said recording medium, and

based on an intensity at the center inside said spot and a distance between the center of said spot and a point at which an intensity of a diffraction ring is maximum, said discrepancy of the distance between said objective lens and said recording medium from said desirable distance is detected.

8. (Currently Amended) A method of detecting a deviation of a focal point position characterized in that, based on an intensity distribution of reflected light which is generated as a recording medium reflects through an objective lens recording light which is modulated in accordance with information to be recorded, a discrepancy of a distance between said objective lens and said recording medium from a desirable distance is detected ~~A~~

~~method of detecting a deviation of a focal point position in accordance with claim 6, wherein:~~

the intensity distribution of said reflected light is an intensity distribution of a spot of said reflected light which is projected on a light receiving surface which is arranged confocal with respect to said recording medium, and

based on an intensity at the center inside said spot and an intensity of a diffraction ring of said spot, said discrepancy of the distance between said objective lens and said recording medium from said desirable distance is detected.

9. (Currently Amended) A method of forming a master of a data recording medium, in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium remains constant, and information is recorded on said recording medium, wherein

~~characterized in that~~ the focusing control of said objective lens is executed to ~~a state that the~~ position of a focal point of said objective lens ~~has shifted~~ a predetermined fine distance, which is smaller than a film thickness of a photosensitive material film, ~~in the direction of thickness, toward inside from~~

within said photosensitive material film relative to a surface of
said photosensitive material film.

10. (Original) A method of forming a master of a data recording medium in accordance with claim 9, wherein said predetermined fine distance has a value which is in the range of approximately $1/3$ to $2/3$ of the film thickness of said photosensitive material film.

11. (Original) A method of forming a master of a data recording medium in accordance with claim 9, wherein said predetermined fine distance has a value which is approximately $1/2$ of the film thickness of said photosensitive material film.

12. (Currently Amended) A method of forming a master of a data recording medium in accordance with claim 9, wherein:

feedback control for maintaining a distance between said objective lens and said recording medium constant is performed using different light whose wavelength is longer than that of said recording light,

a discrepancy of the distance between said objective lens and said recording medium from a desirable distance is detected

using reflected light which is generated as said recording medium reflects said recording light, and

a control target position for said feedback control is corrected based on said detected discrepancy such that the distance between said objective lens and said recording medium becomes said desirable distance, whereby said objective lens is focusing-controlled.

13. (Currently Amended) A method of forming a master of a data recording medium₇ in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium remains constant₇ and information is recorded on said recording medium, wherein:

~~characterized in that~~ the feedback control is performed using different light whose wavelength is longer than that of said recording light such that a distance between said objective lens and said recording medium remains constant,

a discrepancy of the distance between said objective lens and said recording medium from a desirable distance is detected using reflected light which is generated as said recording medium reflects said recording light, and

a control target position for said feedback control is corrected based on said detected discrepancy such that the distance between said objective lens and said recording medium becomes said desirable distance.

14. (Currently Amended) A focusing control unit used in a unit for forming a master of a data recording medium, in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium remains constant, and information is recorded on said recording medium, said focusing control unit comprising

~~characterized in comprising a focusing control device that means which focusing-controls said objective lens to a state that the position of a focal point of said objective lens has shifted a predetermined fine distance, which is smaller than a film thickness of a photosensitive material film, in the direction of thickness toward inside from~~ within said photosensitive material film relative to a surface of said photosensitive material film.

15. (Original) A focusing control unit in accordance with claim 14, wherein said predetermined fine distance has a value

which is in the range of approximately $1/3$ to $2/3$ of the film thickness of said photosensitive material film.

16. (Original) A focusing control unit in accordance with claim 14, wherein said predetermined fine distance has a value which is approximately $1/2$ of the film thickness of said photosensitive material film.

17. (Currently Amended) A focusing control unit in accordance with claim 14, wherein said focusing control device means comprises:

feedback control means ~~which maintains~~ for maintaining a constant distance between said objective lens and said recording medium, ~~constant using~~ said feedback control means employing a different light whose wavelength is longer than that of said recording light for feedback control;

position detecting means ~~which detects~~ for detecting a discrepancy of the distance between said objective lens and said recording medium from a desirable distance using reflected light which is generated as said recording medium reflects said recording light; and

control position correcting means ~~which corrects~~ for correcting a control target position of said feedback control

means such that the distance between said objective lens and said recording medium becomes said desirable distance based on said discrepancy which is detected by said position detecting means.

18. (Currently Amended) A focusing control unit used in a unit for forming a master of a data recording medium, in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium remains constant, and information is recorded on said recording medium, said focusing control unit ~~characterized in~~ comprising:

feedback control means ~~which maintains~~ for maintaining a constant distance between said objective lens and said recording medium, ~~constant using~~ said feedback control means employing a different light whose wavelength is longer than that of said recording light for feedback control;

position detecting means ~~which detects~~ for detecting a discrepancy of the distance between said objective lens and said recording medium from a desirable distance using reflected light which is generated as said recording medium reflects said recording light; and

control position correcting means ~~which corrects~~ for correcting a control target position of said feedback control

means such that the distance between said objective lens and said recording medium becomes said desirable distance based on said discrepancy which is detected by said position detecting means.

Claim 19 (Cancelled).

20. (Currently Amended) A focal point deviation detecting unit comprising:

a light receiving means for detecting an intensity distribution of light that impinges upon a light receiving surface; and

a judgement means for judging the intensity distribution of said light that is detected by said light receiving means, wherein:

said light receiving means detects an intensity distribution of reflected light that is generated as a recording medium reflects, through an objective lens, recording light that is modulated in accordance with information to be recorded,

said judgement means judges the intensity distribution of said reflected light that is detected, whereby a discrepancy of the distance between said objective lens and said recording medium from a desirable distance is detected, ~~A focal point deviation detecting unit in accordance with claim 19, wherein~~

a light receiving surface of said light receiving means is arranged confocal with respect to said recording medium,

an intensity distribution of a spot of said reflected light which is projected on said light receiving surface is detected as the intensity distribution of said reflected light, and

said judgement means judges an intensity at the center inside said spot and a distance between the center of said spot and a point at which an intensity of a diffraction ring is maximum, to thereby detect said discrepancy of the distance between said objective lens and said recording medium from said desirable distance.

21. (Currently Amended) A focal point deviation detecting unit comprising:

a light receiving means for detecting an intensity distribution of light that impinges upon a light receiving surface; and

a judgement means for judging the intensity distribution of said light that is detected by said light receiving means, wherein:

said light receiving means detects an intensity distribution of reflected light that is generated as a recording medium

reflects, through an objective lens, recording light that is modulated in accordance with information to be recorded,

said judgement means judges the intensity distribution of said reflected light that is detected, whereby a discrepancy of the distance between said objective lens and said recording medium from a desirable distance is detected, A focal point deviation detecting unit in accordance with claim 19, wherein

a light receiving surface of said light receiving means is arranged confocal with respect to said recording medium,

an intensity distribution of a spot of said reflected light which is projected on said light receiving surface is detected as said intensity distribution of said reflected light, and

said judgement means judges an intensity at the center inside said spot and an intensity of a diffraction ring of said spot, to thereby detect said discrepancy of the distance between said objective lens and said recording medium from said desirable distance.

22. (Currently Amended) A unit for forming a master of a data recording medium, in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled such that a distance from a recording medium remains constant,

and information is recorded on said recording medium, said unit comprising

~~characterized in comprising a focusing control device that means which focusing-controls said objective lens to a state that the position of a focal point of said objective lens has shifted a predetermined fine distance, which is smaller than a film thickness of a photosensitive material film, in the direction of thickness toward inside from~~ within said photosensitive material film relative to a surface of said photosensitive material film.

23. (Original) A unit for forming a master of a data recording medium in accordance with claim 22, wherein said predetermined fine distance has a value which is in the range of approximately $1/3$ to $2/3$ of the film thickness of said photosensitive material film.

24. (Original) A unit for forming a master of a data recording medium in accordance with claim 22, wherein said predetermined fine distance has a value which is approximately $1/2$ of the film thickness of said photosensitive material film.

25. (Currently Amended) A unit for forming a master of a data recording medium in accordance with claim 22, wherein said focusing control device means comprises:

feedback control means ~~which maintains~~ for maintaining a constant distance between said objective lens and said recording medium, ~~constant using~~ said feedback control means employing a different light whose wavelength is longer than that of said recording light for feedback control;

position detecting means ~~which detects~~ for detecting a discrepancy of the distance between said objective lens and said recording medium from a desirable distance using reflected light which is generated as said recording medium reflects said recording light; and

control position correcting means ~~which corrects~~ for correcting a control target position of said feedback control means such that the distance between said objective lens and said recording medium becomes said desirable distance based on said discrepancy which is detected by said position detecting means.

26. (Currently Amended) A unit for forming a master of a data recording medium, in which recording light which is modulated in accordance with information to be recorded is converged through an objective lens which is focusing-controlled

such that a distance from a recording medium remains constant, and information is recorded on said recording medium, said focusing control unit ~~characterized in~~ comprising:

feedback control means ~~which maintains~~ for maintaining a constant distance between said objective lens and said recording medium, ~~constant using~~ said feedback control means employing a different light whose wavelength is longer than that of said recording light for feedback control;

position detecting means ~~which detects~~ for detecting a discrepancy of the distance between said objective lens and said recording medium from a desirable distance using reflected light which is generated as said recording medium reflects said recording light; and

control position correcting means ~~which corrects~~ for correcting a control target position of said feedback control means such that the distance between said objective lens and said recording medium becomes said desirable distance based on said discrepancy which is detected by said position detecting means.